

MIMOSA SOUSAE, A NEW SPECIES OF SENSITIVAE
(LEGUMINOSAE) FROM OAXACA, MEXICO.

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This species was collected as part of the study of Oaxacan Legumes, in which the author will contribute the taxonomic treatment of *Mimosa*.

The state of Oaxaca comprises very varied topographical and climatic conditions with a great diversity of species of *Mimosa* (45 species have been found in the state up to the present time). The following is a new species:

Mimosa sousae R. Grether, sp. nov.

Frutex vel suffrutex usque ad 1.5 m altus, inermis, omnis dense strigosus, trichomatibus barbellatis interdum basi ramosis. Pinnis unijugis, foliolis bigeminis, (1-) 2-4 (-7)cm longis, (1-) 1.5-2.5 (-4.5)cm latis, oblique ellipticis, obovatis vel orbicularibus usque ad oblongilanceolatis, utrinque ochraceis ob strigas confertas, apex obtusus usque ad mucronulatus vel acutus. Capitula axillaria solitaria vel 2-3 aggregata floribus hermaphroditis et masculinis, subglobosa circa 2 cm diametro, pedunculis 2.5-6 cm longis; calyx paleaceus corolla duplo brevior; corollae lobi ad apicem trichomatibus barbellatis; stamina tot quot corollae lobi vel duplo; ovarium stipitatum longe setosum. Legumen stipitatum 1-5 articulatum, valvae ochraceae dense strigosae, margine incrassato trichomatibus crassis brevibus, apex acutus usque ad rostratus aut mucronulatus usque ad mucronatus. Semina lenticularia brunnea usque ad rubella, plus minusve isodiametra.

Low shrub or suffruticose plant, 0.3-1.5 m high, unarmed, with a densely strigous pubescence throughout, formed by barbellate, mostly single trichomes, sometimes branched at the base; branchlets, petioles and peduncles with single thin hairs intermixed with barbellate ones; branches terete, glabrate. Stipules 3-6 mm long, subulate to linear, rarely lanceolate; petioles terete, (1-) 2-2.5 (-7)cm long; pinnae 1 pair, (1-) 1.5-2 (-4)cm long; leaflets 2 pairs, (1-) 2-4 (-7)cm long, (1-) 1.5-2.5 (-4.5)cm wide, the lower inner one reduced, 0.4-1 cm long, 0.2-0.6 cm wide or absent, mostly obliquely elliptic or obovate, but frequently orbicular to oblong-lanceolate, ochre-yellow tonality given by the densely strigous pubescence on both

surfaces, margin thick with shorter trichomes, apex obtuse to mucronulate or acute. Inflorescences in axillary heads, solitary or in groups of 2-3, heads subglobose, ca. 2 cm in diameter (including stamens); peduncles 2.5-6 cm long; bracteoles linear-lanceolate, with a prominent midrib and barbellate trichomes, as long as or longer than the corolla. Flowers hermaphrodite or masculine and hermaphrodite in the same head; calyx paleaceous, 1.5-2 mm long, corolla 4-5 (-6)-lobed, lobes pink, 3-4 mm long, with barbellate trichomes at the apex; stamens as many as corolla-lobes or twice as many (rarely 11), filaments lilac, 11-12 mm long; pistil 13-15 mm long, ovary stipitate, 1-1.5 mm long, long setaceous; style glabrous, tapering toward the apex; stigma formed by a small opening. Legume mostly straight, sometimes curved, (2-) 3-5 (-6) cm long, (0.8-) 1 (-1.3) cm wide, 1-5 articles, stipe 0.2-1 cm long; valves densely strigous with barbellate trichomes swollen at the base, 2-3 mm long; margin thick, with shorter trichomes; apex acute to rostrate or mucronulate to mucronate. Seeds with a shining and smooth testa, brown to reddish, lenticular, rounded or slightly emarginate, isodiametric or slightly longer than wide, 5-6.6 mm long, 4.2-6.6 mm wide and 2-3 mm thick at the middle; pleurogram hippocrepiform; hilum elliptic; raphe a point.

The name of this new species honors M.C. Mario Sousa, coordinator of the study "Las Leguminosas del Estado de Oaxaca", who first collected it.

TYPE: MEXICO. Oaxaca: 2 km W of Salina Cruz, District of Tehuantepec. Sousa 9507, Sept. 19, 1978. HOLOTYPE: MEXU; ISOTYPES: to be distributed.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Oaxaca: 1-2 km W of Salina Cruz, Dto. Tehuantepec. R. Grether 1232 and H. Quero, Dec. 14, 1978 (MEXU, UAM-I); same locality, Sousa 7423, Jun. 19, 1977 (MEXU, UAM-I); same locality, Sousa 8633, Oct. 27, 1977 (MEXU, UAM-I); same locality, Sousa 9109, Feb. 20, 1978 (MEXU, UAM-I); same locality, Sousa 10120, Dec. 15, 1978 (MEXU, UAM-I).

This new species is included in the Series *Sensitivae*, characterized by the presence of one pair of pinnae and two pairs of large leaflets on each rachis, the lower inner one reduced or absent; *Mimosa sousae* is distinguished from other species of *Sensitivae* by very abundant barbellate trichomes giving an ochre-yellow tonality to the leaflets and fruits, by the long peduncles, by the large flowers and large subglobose heads.

Its distribution is apparently very restricted; up to the present time, it has been found only on hills locat



Mimosa sousae. a) Flowering branch. b) Portion of leaflet, note the barbellate trichomes. c) Fruiting branch. d) Portion of fruit showing the very densely strigous pubescence and thick margin with shorter barbellate trichomes. e) Flower and bracteole. f) Pistil.

ed in the vicinity of Salina Cruz, at 20-100 m of altitude, on very rocky hillsides with a shallow igneous soil, over looking the Pacific Ocean, very close to the coast on an area exposed to very strong winds. This shrub attains on ly 40 cm high when growing on places directly exposed to the wind. In dells and protected places, however, it can attain 1.5 m. This species blooms in June; mature fruits can be found from September through February of the following year.

The characteristic vegetation on those hills is an Arid Tropical Scrub with *Dodonaea viscosa* Jacq., *Comocladia* sp., *Krameria grayi* Rose, *Russelia sarmentosa* Jacq. and different legumes, such as:

<i>Aeschynomene acapulcensis</i> Rose	<i>Lonchocarpus emarginatus</i> Pitt.
<i>Aeschynomene pinetorum</i> Brandg.	<i>Mimosa deamii</i> Rob.
<i>Calliandra purpusii</i> Brandg.	<i>Mimosa goldmanii</i> Rob.
<i>Cassia flexuosa</i> L.	<i>Nissolia pringlei</i> Rose
<i>Cassia serpens</i> L.	<i>Phaseolus microcarpus</i> Mart.
<i>Crotalaria pumila</i> Ort.	<i>Pithecellobium platylobum</i> (Spreng.) Urb.
<i>Desmodium glabrum</i> (Mill.) DC	<i>Pityrocarpa flava</i> (Spreng. ex DC) Brenan
<i>Galactia striata</i> (Jacq.) Urb.	<i>Stylosanthes aff. viscosa</i> Sw.

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